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Estonian clause order

1 Introduction

Many descriptions of Estonian grammar take their starting-point from something that is referred to as context free sentences. In my opinion, language and grammar can never be context free. Everything is part of a context – even so-called context free sentences.

I have identified the contextual parameters as form, purpose, recipient and time. The forms are written text and oral utterances. The written texts may be subdivided into forms like books, magazines, newspapers, homepages etc. The purpose of a text may be to educate, instruct, inform, provoke or amuse the reader. Lastly, the recipient parameter takes into account the age, sex and level of education of the assumed reader. These are parameters that the writer is more or less aware of when composing a text.

In order to limit the variation between contextual factors, I investigate material that was produced in Estonia in 1999. However, in order to be able to draw any conclusions about the relevance of the context I have chosen to concentrate on a few text types. The material consists of about 200 sentences from five authors each in newspapers, women's magazines, scientific prose and novels, as well as all the private homepages that were published in Estonia in 1999 and which contain sentences. The examples in the paper are taken from the material, as listed in the sources. All in all, the material consists of 4839 sentences with a total of 10326 clauses. I define sentences as units starting with a capital letter and ending with a punctuation mark, whereas clauses are units with a finite verb, the predicate. In this paper all preliminary data is from my forthcoming dissertation.

At this stage of the analysis I have posed two questions.

1. What does the Estonian sentence look like?
2. Is there anything we could call an Estonian clause order?

To approach these questions I counted the number of main clauses and subordinate clauses in the sentences. The result is presented in Table 1.

In an initial analysis I identified sentence types that contained parenthetical clauses, direct quotations from another author, direct speech with or without

inserted clauses and clauses without any of this, plain sentences. This analysis showed that plain sentences, M, and direct quotation without inserted clauses, Q, can be analysed together as MQ-sentences. This is why the total number of sentences in Table 1 amounts to 4264 rather than the 4839 sentences present in the material.

Table 1: Number of main clauses and subordinated clauses in MQ-sentences

MQ (n)	m0	m1	m2	m3	m4	m5	m6+	s(tot)
s0	-	1768	583	125	23	9	8	2516
s1	5	919	214	45	6	2	4	1195
s2	1	297	75	22	5	3	0	403
s3	0	77	20	4	2	1	0	104
s4	0	19	10	4	1	0	0	34
s5+	0	6	6	0	0	0	0	12
m(tot)	6	3086	908	200	37	15	12	4264

Six m0-sentences have no main clause in the sentence, 3086 (72%) m1-sentences consist of one main clause, 908 (21%) m2-sentences of two and so on (Table 1). Likewise 2517 (59%) s0-sentences lack a subordinate clause, 1195 (28%) s1-sentences consist of one and so on (Table 1). In this paper I will investigate the clause order of the four most frequent main clause-subordinate clause combinations. The combinations that have been analysed are sentences consisting of a single main clause (1768 sentences, 42%), one main clause and one subordinate clause (919 sentences, 22%), two main clauses and no subordinate clause (583 sentences 14%), and one main clause and two subordinate clauses (297 sentences, 7%) (Table 1).

2 Sentences with one main clause and no subordinate clauses, m1s0

In MQ-sentences the most common sentence structure consists of a single main clause. The length of the main clauses and the clause structure varies greatly. Since my focus is on sentence structure this variety in clause structure will be left out of the analysis. The sentence structure of the single main clauses described on the clause level is always the same, namely m1 (Appendix 1).

3 Sentences with one main clause and one subordinate clause, m1s1

The second most frequent kind of sentence contains one main clause and one subordinate clause. Estonian subordinate clauses are either in postposition after the main clause, in preposition before the main clause or embedded within the main clause. The position of the subordinate clause is connected to its function. Table 2 shows the subordinate clause position in regard to the function in all MQ-sentences, not only in m1s1 sentences. The last column shows the total number, *n*, of subordinate clauses.

Table 2: Subordinate clause positions in MQ-sentences

MQ	Post (%)	Pre (%)	Embedded (%)	<i>n</i>
Complement, object	96	4	1	591
Complement, subject	96	3	1	145
Complement, adverbial	89	5	6	131
Adverbial, cause	88	12	0	313
Adverbial, time	54	38	8	181
Adverbial, condition/time	19	77	4	112
Adverbial, manner	91	7	1	68
Adverbial, condition (if)	30	67	3	61
Adverbial, space	84	0	16	63
Adverbial, consequence	100	0	0	27
Adverbial, degree	93	4	4	27
Adverbial, despite	23	69	8	26
Adverbial, quantity	55	45	0	22
Adverbial, demand	50	50	0	10
Adverbial, kind of	78	0	22	9
Adverbial, time/space	100	0	0	6
Adverbial, time/cause	100	0	0	3
Adverbial, time/state	100	0	0	2
Adverbial, prerequisite	0	100	0	2
Relative clauses	83	2	14	651
Other subordinated clauses	87	3	10	78

Most subordinate clauses occur in postposition. Adverbial consequence clauses occur exclusively in postposition. This is not very surprising considered the logical order of cause and effect as in Example 1, where the subordinate clause is an adverbial consequence clause.

- (1) Suusakeskustes on piiratud arv kohti, *nii et soovitav on broneerimisega kiirustada*. (I27 12) 'The skiing centers have a limited accommodation, *so it is recommended to hurry with the booking*'

Analogical to the reasoning of logical order, the subordinate clauses in preposition most often denote condition (*kui* 'if'), time (*kui* 'when'), despite and prerequisite. The adverbial condition/time clauses are clauses where it is hard to tell whether it is a temporal or consequential clause, as in Example 2.

- (2) *Kui mul on kahtlusi*, siis hoian need endale. (I18 29) '*If/When I have doubts*, then I keep them to myself.'

Embedded subordinate clauses are often relative clauses as in Example 3. Though only 14% of the 651 relative clauses are embedded they make 66% of all embedded clauses. The embedded complemental object clauses are subordinate clauses that belong to a contracted clause as in Example 4. These clauses are actually in postposition in relation to the verb they complement. Common to all embedded clauses are that they are placed directly after their head.

- (3) Noorem tütar Krõõt, *kes on rahu ise*, hoiab veel ema seelikusabast kinni. (n1 73) 'The youngest daughter Krõõt, *who is the peace herself*, still keeps to the hem of her mothers skirt.'
- (4) Teades aga, et kogu kalamajandusministeeriumi esindus kõõlub ja irvitab akendel, tegi Maria meele kindlaks ja lõi selja sirgeks. (Uu 40) 'Knowing that all the representatives of the fishing ministry hang and grin at the windows made Maria determined and straightened her back.'

(main clause 1 -*et*- subordinate clause 1 -*ja*- subordinate clause 2 -, - main clause 1 -*ja*- main clause 2)

4 Sentences with two main clauses and no subordinate clauses, m2s0

As is shown in Table 1, the third most frequent kind of sentences consists of two main clauses and no subordinate clause. In sentences with only two main clauses there is no subordination but only coordination.

The conjunctions and connectors with more than two occurrences in coordinated sentences with two main clauses are *ja* 'and' (152 occurrences), , [comma] (127), *ning* 'and' (68), *kuid* 'but' (51), *aga* 'but' (38), - [dash] (38), : colon (15), *vaid* 'but' (13), *või* 'or' (12), *kuigi* 'though' (10), *ega* 'and not' (7) and *ka* 'also' (3).

The semantics and therefore the function of the conjunction or connector

differ. I have identified and categorized the relations between coordinated sentences in the material. The temporal, causal and specifying relations occur more frequently than the generalizing and locative relations. Sentences not bound by any of these relations are either sentences where one of the clauses is commenting or evaluating the other, or where the coordination is due to other contextual rules or simply the priorities of the writer (Table 3).

Table 3. Relations between coordinated clauses

Temporal
Causal
Specifying
Generalizing
Locative
Commenting and Evaluating
Contextual relation and the priorities of the writer

Temporal coordinated clauses are mostly arranged in chronological order. The clause orders present in the material are: chronological order in the past, past to present, past to future as in Example 5, present to future, chronological in the future, and breaking the chronological order is the present to past. Temporal coordinated clauses can be coordinated by most conjunctions and connectors.

- (5) *Möödunud aasta augusti päikesevarjutuse ajal vahetas Jeltsin peaministrit, see aastal kordub sama.* (X1 49) 'Last year in August during the solar eclipse Jeltsin changed his prime minister, this year the same thing will happen.'

In causal coordination the second clause is logically dependent on the preceding clause. In Example 6 the dog became silent because of the fact that the lights were turned on. There is often a temporal aspect to the causal coordination but the temporal aspect is not the primary relation.

- (6) *Seejärel süttis ootamatult valgus ja koer jäi vait.* (Ki 31) 'After that suddenly the lights were turned on and the dog became silent.'

In specifying coordinated sentences the first clause has a wider perspective that is narrowed down in the following clause. In Example 7 the primitive rescue gear is specified as consisting of bare hands. *Vaid* 'but', colon and semicolon give a specifying relation between two coordinated clauses.

- (7) *Päästevahendid* olid algelised, inimesi kaevati *kätega* lumest välja. (X2 49) 'The *rescue gear* was primitive, people was dugged out of the snow by *hand*.'

Generalizing coordination is the opposite of specifying: the perspective moves from a more limited to a more general viewpoint. In Example 8 this is illustrated with gun in the first clause and destroyer in the second. If inversed, the perspective would have been specifying.

- (8) Mina kõnnin kogu aeg *relvaga* ringi, mina olen ise üksik *hävitaja*. (Pa 13) 'All the time I walk around with *a gun*, I am *a destroyer*.'

Sentences with location as coordinating relation can have either the perspective of here and/but/or there, or the opposite, there but/or here. Example 9 exemplifies the somewhat more frequent here and there. If the *meil* 'at ours' had included the central hospital the perspective would have been specifying. It is only the context of the sentence that reveals the reference of the *anafora*.

- (9) *Meil* sündis üle 200 lapse rohkem kui ülemöödunud aastal ja *keskhaiglas* kaks last rohkem. (X3 25) 'At *our* (hospital) there was born over 200 children more than the year before last year and *at the central hospital* two more children.'

The commenting and the evaluating clauses can be found before or, more likely, after the commented clause, as in Example 10. The commenting and evaluating clauses cannot be separated since all commenting clauses are to some degree evaluating and all evaluating clauses are commenting. Example 10 is more commenting than evaluating on the commenting evaluating continuum.

- (10) Eesti saatus on muu maailma saatusega seotud, *ega siin midagi erilist pole*. (X1 59) 'The destiny of Estonia is connected to the destiny of the rest of the world, *and there is nothing special about that*.'

Sentences that are not coordinated by any of the relations presented above are either ordered by contextual factors like known information vs. new information or by the priorities of the writer. This does not mean that temporal, causal, specifying, generalizing and locative relations are not bound by contextual factors, but that these categories have an additional relation, that is absent in the sentences with the coordinated relation that I call Contextual relation and the priorities of the writer.

To illustrate this I have given two examples. The clauses in Example 11 do not have a temporal, causal, specifying, generalizing, locative or commenting relation. The clause order could have been inversed as regards the truth-value of the sentence, something which is common for sentences in this category. The

clause order is due to some priorities of the writer.

In Example 12 the first clause is negated and the other is not. The ordering of these clauses is also a priority of the writer and both orders can be used.

The category, Contextual relation and the priorities of the writer, is frequent and used with most of the conjunctions and connectors.

- (11) Kuueaastane Kirke käib lasteaias, kahene Krõõt on emaga kodus. (n1 20) 'Six-year-old Kirke goes to day nursery, two-year-old Krõõt is at home with her mother.'

- (12) Ühtesid *ei või* kasutada koos läätsedega, teisi *võib*. (s1 56) 'Some *cannot* be used with lenses, others *can*.'

5 Sentences with one main clause and two subordinate clause, m1s2

Thus far I have presented the simplest of the clause orders. Sentences with a single main clause have only one clause order, sentences with one main clause and one subordinate clause have three clause orders, and sentences with two main clauses have one clause order (Appendix 1). In these sentences it has been possible to observe subordination and coordination without the influence of distribution. In sentences with more than two clauses the influence of distribution on the sentence level is possible. In some of the sentences with one main clause and two subordinate clauses distribution makes a difference for the clause order.

In sentences with one main clause and two subordinate clauses the subordinate clauses can be coordinated, subordinated to one another, or both subordinated to the main clause but otherwise not directly related by subordination or coordination.

The coordinated subordinate clauses follow the pattern of subordination in Table 2, except that subordinate clauses in preposition are not as frequent, and just one of 118 sentences contains two embedded coordinated subordinate clauses. The coordinated subordinate clauses fill the same grammatical function, as in Example 13, where both subordinate clauses are adverbial clauses denoting cause, coordinated with *ja* 'and'.

- (13) Müüt ei ole dogma, sest see on absolutiseeritud ja eeldab religioosset kogemust (AK 134) 'The myth is not a dogma, since it is absolutized and presumes a religious experience.'

The subordinate clause types that appear after, before or within the main clause, are in postposition, preposition or embedded (Table 2), regardless of whether the head clause is a main clause or a subordinate clause.

The amount of clause orders theoretically possible, with multiple subordination in sentences consisting of one main clause and two subordinate clauses, is nine. In the material there are six clause orders present (Appendix 1). There is a clear system to the clause order present in the material, which can be described as follows: postposition is preferred before preposition, which in turn is preferred before embedded position (Table 4). Subordinate clauses in postposition have subordinate clauses in all three positions, post-, pre- and embedded position. Subordinate clauses in preposition have subordinate clauses in two of the positions, namely in post- and preposition. Embedded subordinate clauses have only subordinate clauses in postposition. In Example 14 the subordinate clause of the first level is a relative clause in postposition, which has a subordinated object clause also in postposition.

- (14) Kehtima jääb ikkagi seos $E > U_0$, *mis tähendab*, et gaasiline olek jääb püsima. (MF 199) 'The connection $E > U_0$ will still be valid, *which means* that the gaseous state will remain.'

Table 4: m1s2-sentences, the subordinated subordinate clauses

<u>m1s2</u>	<u>Postposition</u>	<u>Preposition</u>	<u>Embedded</u>
Postposition	yes	yes	yes
Preposition	yes	yes	none
Embedded	yes	none	none

The third possible relation between one main clause and two subordinate clauses, besides the coordinated subordinate clauses and the subordinated subordinate clauses, is two subordinate clauses separately subordinated (Appendix 1).

The two separately subordinated clauses are most often separated by the main clause or some part of the main clause. The most frequent clause order is that with one prepositional and one postpositional subordinate clause. In Example 15 the prepositional subordinate clause is an adverbial time clause and the postpositional clause a complementary object clause. Due to the distribution, the prepositional subordinate clause affects the rest of the sentence, including the final subordinate clause. The different clause orders presented in Table 2 are valid in sentences with two separately subordinated clauses as well.

The sentences with the two separately subordinated clauses both occurring in postposition in all six cases consists of a complement clause and a finishing adverbial clause as in Example 16. The final adverbial clause affects the whole sentence.

- (15) Kui Sa seda lehekülge loed, siis tea, et tegemist on esimese vastavasisulise koduleheküljega Eestis. (I4 29) 'When you read this homepage, then know that it is the first of its kind in Estonia.'
- (16) Mina ei tea, mis on see "vaba aeg", sest mul on kogu aeg vaba aeg. (I5 3) 'I don't know what "spare time" is, because I only have spare time.'

6 Conclusions

These are patterns that organize the clause order in sentences. There are still some more distributive effects on sentences with more than one main clause. In these clause orders, the coordinators and conjunctions play a central role along with the coordinating relations presented in Table 3. In this paper I have only shown the four most frequent combinations of main clauses and subordinate clauses. Table 1 illustrates many more combinations which all consist of one or more clause orders. In the material I have found a total of 182 clause orders, but 148 or 81% of these occur in less than five sentences.

Are there any differences within the material, between the different kinds of text? Yes, there are. In the newspaper text the complement clause is much more common. Likewise, in scientific prose the relative clause, and in novels and homepages the adverbial clause is more frequent. The relative clauses in scientific prose are not as often embedded as their counterparts in the other types of text.

The sentences containing two separately subordinated clauses are unusual among the direct quotations, Q-material. As some of the clause orders presume a specific combination of subordinate clauses, such as sentences with two separately subordinated clauses, it is not recommendable to make claims for the entire written language based on just one text type.

How about my two questions: What does the Estonian sentence look like, and is there anything we could call an Estonian clause order?

There is no such thing as *the* Estonian sentence. There is variety between different kinds of text, between authors and even within texts. However, many Estonian sentences consist of one main clause. The subordinate clause is most likely postpositional, though a prepositional subordinate clause is often an adverbial clause that denotes condition or time, and an embedded subordinate clause is probably a relative clause.

Not all theoretically possible clause orders are found in the material. There is a clear system to the order of main clauses and subordinate clauses depending on the semantics of the clauses, the pragmatics of the sentence and the context of the text. This system is an Estonian clause order.

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Appendix 1: Clause orders for m1s0-, m1s1-, m2s0- and m1s2-sentences

Clause order	Occurrences
<i>m1-sentences</i>	
m1	1769
<i>m1s1-sentences</i>	
m1>s1.1	708
s1.1<m1	147
m1>s1.1<m1	63
<i>m2s0-sentences</i>	
m1m2	583
<i>m1s2-sentences, coordinated subordinate clauses</i>	
m1>s1.1a=s1.1b	109
s1.1a=s1.1b<m1	8
m1>s1.1a=s1.1b<m1	1
<i>m1s2-sentences with subordinated subordinate clauses</i>	
m1>s1.1>s1.2	101
m1>>s1.2<s1.1	15
m1>s1.1>s1.2<s1.1	9
s1.1>s1.2<<m1	7
m1>s1.1>s1.2<<m1	2
s1.2<s1.1<m1	1
<i>m1s2-sentences with two separately subordinated clauses</i>	
s1.1a<m1>-s1.1b	21
m1>s1.1a<m1>-s1.1b	15
m1>s1.1a-s1.1b	6
m1>s1.1a<m1>-s1.1b<m1	1
s1.1a<m1>-s1.1b<m1	1

Summary

Estonian clause order is organized by different kinds of parameters. On the text level there are the nonlinguistic questions about text length, register, topic and audience. On the sentence level there are sentence patterns, information structure, sentence bonding and comprehendability. On the clause level there are clause order rules that have many similarities with the Estonian word order rules, like the number of subordinate clauses first in a sentence or where to find the relative clauses.

The most frequent kind of sentence in my material contains one single main clause. The second most frequent kind of sentence contains one main clause and

one subordinate clause. There are different kinds of main clauses and subordinate clauses and therefore the type of bond between the two differ. There are three kinds of clause orders for one main clause and one subordinate clause. The most frequent is the initial main clause followed by the initial and the intermediate subordinate clause. This third option is most often a relative clause and it is placed next to the head of the relative clause.

The more clauses, main clauses and subordinate clauses a sentence contains, the more complex the structures get. One clause gives one order, two clauses give four (as you have the option of having two main clauses). Already three clauses can contain either three main clauses, two main clauses and one subordinate clause, which are expressed in six different orders, or one main clause and two subordinate clauses, expressed in 13 different orders. This gives totally 20 different kinds of clause orders for sentences with three clauses. The interesting part is the unifying structures on different levels of the grammar.